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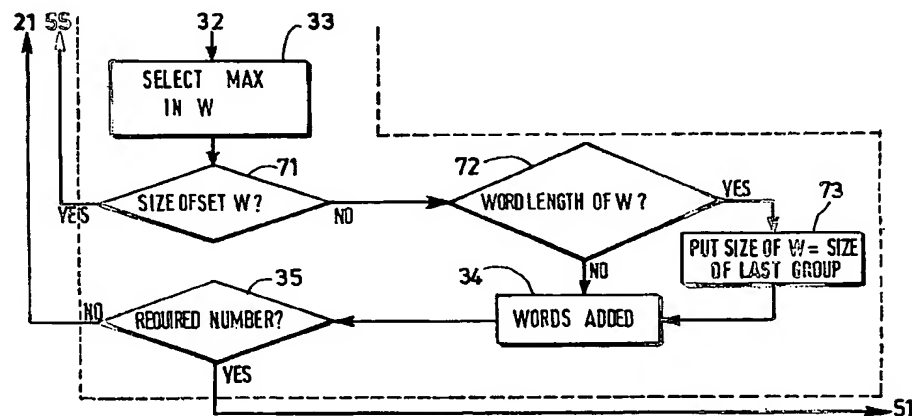
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(54) Title: METHOD AND DEVICE FOR BUILDING A VARIABLE-LENGTH ERROR-CORRECTING CODE



(57) Abstract: The invention relates to a variable-length error-correcting (VLEC) code construction method, in which the main steps are : defining all the needed parameters, generating a code having a fixed length L1, storing in a set W thus obtained all the possible L1-tuples distant of the minimum diverging distance d 'min' from the codewords (one extra-bit being affixed at the end of all words if the new set W thus obtained is not empty), deleting all words of W that do not satisfy a distance criterion with all codewords, and verifying that all words of the final set W satisfy another distance criterion. Assuming that all distributions of number of codewords for the best VLEC codes have a similar curve allure of a bell shape type, it is then proposed, according to the invention, to define an optimal length value Lm until which the number of codewords increases with their length, whereas it decreases after said value Lm. According to this new construction method, called Lm optimization, it is possible to apply the so-called "Ls optimization" method with avoiding the edges of the curve and to work locally, wherein Ls represents a length to which the method skips back in the codeword deletion stage.



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